

# Kelderman Air Ride

*"The difference in the ride is like night and day"*

## 1994-2002 Dodge Rear Four-Link System

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- *Improves the ride of the truck*
- *Automatic leveling*
- *Dump option*
- *Increases load carrying capacity*
- *Keeps truck bed at the same height whether empty or loaded*



**G2 Dodge**

## Warranty Disclaimer Notice Read Before Beginning Installation

*Some Kelderman Air Ride kits contain both fine thread and coarse thread fasteners, fittings and air bag mountings. Before attempting to tighten*

*any threaded portion of the Air Ride, check to be sure the threads are the same size and thread count before attempting to tighten. Damaged or cross-*

*threaded fasteners, fittings and air bags caused by improper size. Thread count or misalignment are not covered by warranty.*

# 1994-2002 Dodge

## Tools Required for Installation of the Air Ride

**Before installation of the Air Ride unit, prepare a smooth, flat, hard surface and have all tools and equipment needed for the job. Chock the front wheels of the truck, to prevent it from rolling forward or rearward. Place a jack on each side of frame ahead of the rear springs, front bolts. (1.1)**

### **Tools and equipment required:**

**(2) Jacks**

**(2) Jack Stands**

**Wheel Chocks**

**Combination Wrench Set (up to 1 5/16")**

**Socket Set  
5/16" torque wrench)**

**Hammer**

**Side Cutters**



(1

1.1



**\*\*When raising or lowering the truck, keep jack stands in place to prevent the truck from falling, which could cause severe personal injury or death\*\***

## Installing the Air Ride

**\*\*NOTE: Measure pinion angle before beginning installation. (1.2)**



1.2

**Step 1. Measure the pinion angle and record that here \_\_\_\_\_ . Place jack under driver side frame rail (behind cab) and lift frame so that there is little tension on the leaf spring (1.1).**

**Step 2. Raise the truck, enough to remove the leaf spring. Remove the bolts that hold the front leaf spring and rear shackle in place. Set these bolts aside, as they will be used in**

**step 5 to fasten the air ride front trailing arm mount in place, and the accumulator tanks in position. Remove the U-bolts that hold the leaf springs in place. The leaf spring and the shackle removed.**

**Step 3. Remove two bolts holding the rubber bumper on the bottom of the frame.**

# Installation Instructions (continued)

**\*\*NOTE: lower air bag mount without welded panhard mount is driver's side. (1.7 & 1.8)**



**Front trailing arm mount (2)**



**Lower air bag mount(2)**



**Upper bag crossmember**



**upper**

**lower**

**1.3**

**Trailing arms (4)  
2 short (upper)  
2 long (lower)**

**Step 5. Line up the lower bag mount so 3/4" knob on bottom of bracket fits into hole on axle. (1.5 & 1.6)**



**Lower axle clamps**

**Step 4. Locate the lower axle clamps. (1.4) and lower air bag mounts. Place the lower air bag mounts on the original leaf spring perches. (1.5, 1.6)**

**Step 5. Insert (4) 5/8" x 8 1/2" grade 8 bolts and tighten (criss-cross) with equal threads on each bolt. (1.7 & 1.8) Torque to 150 ft/lbs. Use a criss cross pattern when tightening.**

**Step 7. Locate air bag top cross member and bolt in place with the (4) 7/16x1 1/2" bolts. The pan hard bar mount located on the drivers side. Also use the 1/2x5" bolts to fasten the drivers side cross member mount to the backing plate. Torque the 7/16" bolts to 50 ft/lbs and the 1/2" to 65 ft/lbs.**

**Step 8. Line up front lower trailing arm mount with pre-existing holes on frame rail (2 holes will line up). Insert bolts and tighten. Drill the remaining three holes (2 holes, 1/2", 1 hole 3/8"). (1.9) On driver's side, fuel tank mounts need to be loosened and tank pried towards the middle of the truck in order to create enough space to tighten the bolts on the inside of the frame. (2.0) Use caution when drilling around fuel lines, as well as tightening the fasteners around fuel lines. Repeat step on other side.**

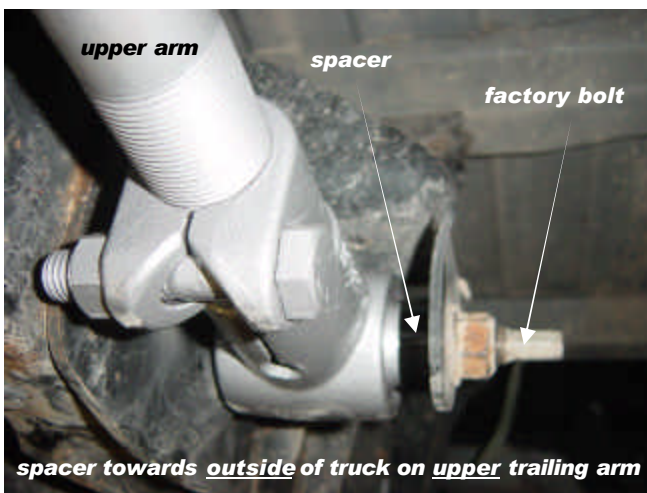




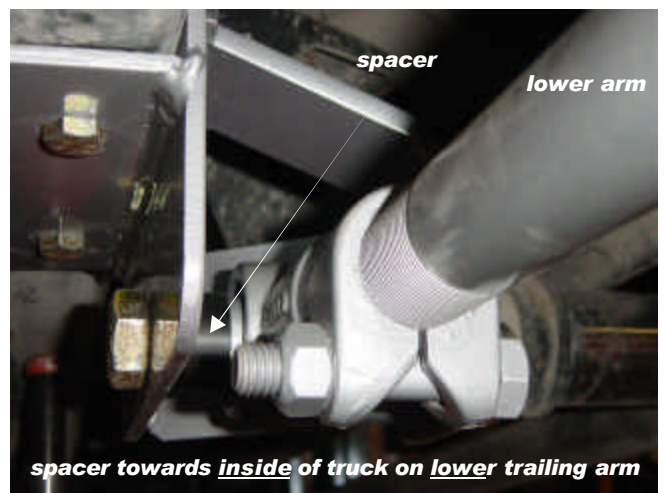
1.9



2.0



2.1



2.2

**Step 9. Insert trailing arms. Upper arm first, lower arm second. (1.3, 2.1 & 2.2)**

**Step 10. Locate air bags and insert between top plate and axle mounted bracket (2.3 & 2.4). Tighten all nuts on top and bottom of air bag. Use the 1/2" nuts and lock washers on the stud. Use the 3/4" lock washer and nut and then insert the 3/4" fitting. (3.1)**

**\*\*NOTE: It will be essential to lower the truck in order to line up the holes on the axle-mounted bracket top plate with the studs on the air bag. (2.4)**

2.3



2.4

# 1994-2002 Dodge

**Step 11. Locate the panhard bar. Install it on the upper bag crossmember using the 3/4x3 1/2" bolt. Use one spacer on each side of the heim end. Attach the other end of the panhard bar to the passenger side lower air bag mount using the 3/4x2 1/2" bolt. Use a spacer on each side of the heim end.**



**Step 12. Locate the accumulator tanks. They attach to the rear leaf spring perches. Make sure the end with the 3/4" air fitting points forward towards the air bag. Cut a 3/4" piece of air line and connect to the air bag.**

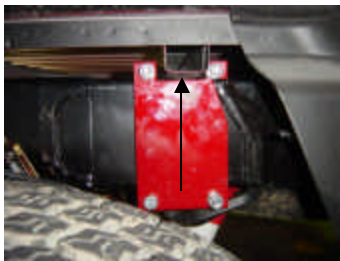


Upper crossmember



Backing plate

Panhard bar



2.3



2.5

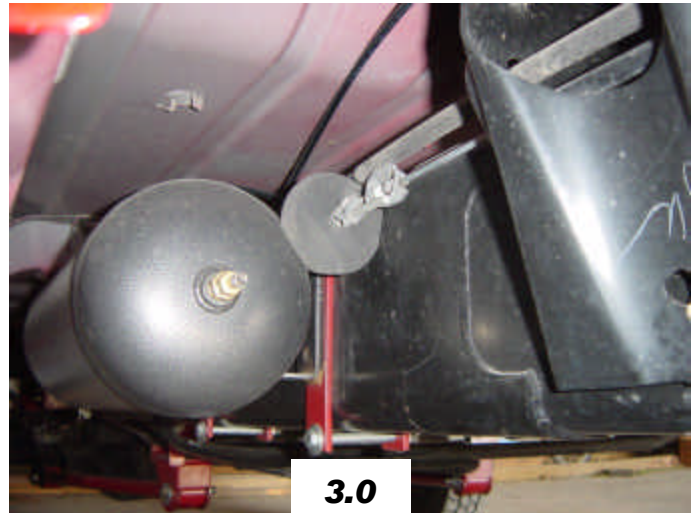
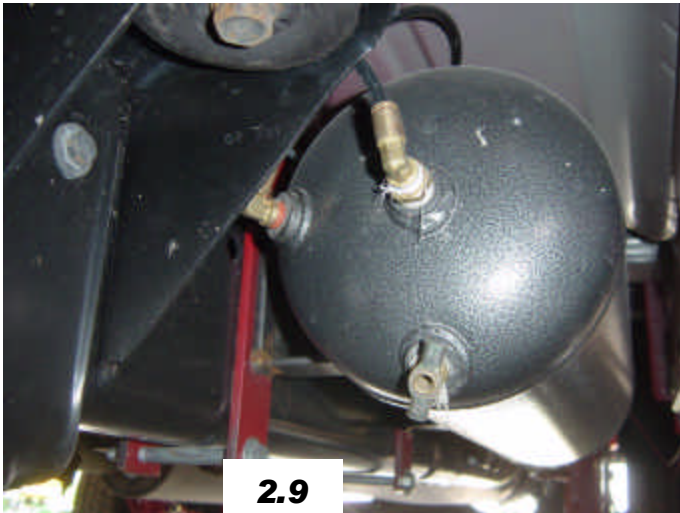
**\*\*NOTE:** the purpose of the panhard is to set and maintain proper side-to-side axle alignment. It is critical to measure the distance between the inside of the tire and the outside of the frame. This distance should be the same on both sides.

**Step 15. Once the distance is the same on both sides between the tire and the frame, adjust the heim-end so the holes line up and the panhard bar will fit properly. Tighten bolts on both ends. (2.6, 2.7 & 2.8)**



2.7

## Installation Instructions (continued)



**Step 16.** *Mount the compressor and air tank to the drivers side frame rail. Make sure not to pinch any wires or fuel lines. (2.9 & 3.0)*

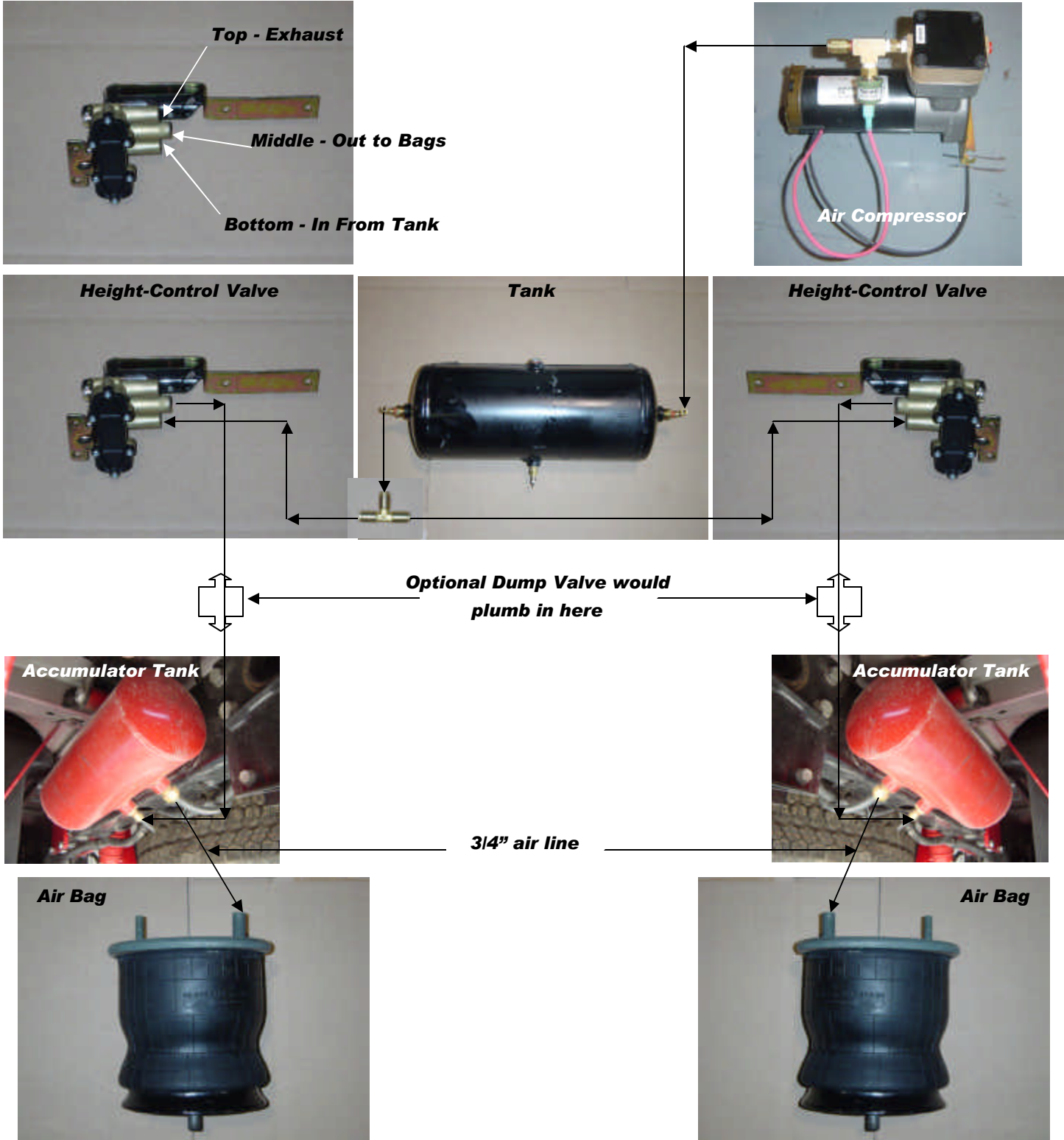
**Step 17.** *Once the air system is hooked up, set the height control valves so that the air bags are 7 1/2"-8" bags tall. This is where the truck will ride best.*

**Step 18.** *Alignment. Refer to step one and set the pinion angle. Also pick a point on each side of the frame to use to get the axle straight with the frame. Also use the panhard bar to center the axle side to side. The easiest way to adjust the trailing arms, is to set a jackstand under the rear hitch with the bags at ride height. Let the air out and adjust the bars 1/2 turn at a time. Adjust the top bars then bottom bars. This will keep the arms from binding up.*

**\*\*Refer to page 8 for air control plumbing detail of the self-leveling kit. This schematic shows the steps required for plumbing the air ride system. Carefully follow instructions packaged with height-control valve.**



# Self-Leveling Kit





## Contact Information

***Kelderman Air Ride appreciates your business. We strive to meet the needs of our customers by providing the highest quality products. If you have any questions concerning this system, please call or email us at the following:***

***2686 Highway 92  
Oskaloosa, Iowa 52577***

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